AMENDMENT UNDER 37 C.F.R. § 1.111 U.S. Appln. No. 09/944,180

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Original): A light beam scanning device, comprising:

a light source provided with a microarea light-emitting diode having microarea light-emitting regions;

a modulator for generating a pulse signal including at least one pulse having a period shorter than a period for forming an image corresponding to one pixel on the basis of image data, and modulating light beams emitted from the microarea light-emitting diode with the pulse signal; and

a scanner for scanning a photosensitive material with the modulated light beams.

- 2. (Original): The scanning device according to claim 1, wherein the period of the pulse is less than one tenth of the period for forming an image corresponding to one pixel.
- 3. (Original): The scanning device according to claim 1, wherein an image corresponding to one pixel is formed by repeating scanning with the light beams modulated by the pulse signal in a main-scanning direction, several times in a sub-scanning direction.
- 4. (Original): The scanning device according to claim 1, wherein an image corresponding to one pixel is formed by being exposed several times respectively in a main-scanning direction and in a sub-scanning direction.

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- 5. (Original): The scanning device according to claim 1, wherein a number of pulses for forming an image corresponding to one pixel is determined on the basis of tone information obtained from the image data.
- 6. (Original): The scanning device according to claim 1, wherein the light source includes a microarea light-emitting diode emitting a light beam in a wavelength range corresponding to blue, a microarea light-emitting diode emitting a light beam in a wavelength range corresponding to green, and a microarea light-emitting diode emitting a light beam in a wavelength range corresponding to red.
- 7. (Original): A scanning device, comprising:

a light source provided with a microarea light-emitting diode having microarea light-emitting regions;

a modulator for determining a number of pulses having a constant period and a substantially constant power within a period for forming an image corresponding to one pixel on the basis of image data, and modulating light beams emitted from the microarea light-emitting diode with a pulse signal including the pulses; and

a scanner for scanning a photosensitive material with the modulated light beams.

- 8. (Original): The scanning device according to claim 7, wherein the period of the pulse is less than one tenth of the period for forming an image corresponding to one pixel.
- 9. (Original): The scanning device according to claim 7, wherein an image corresponding to one pixel is formed by repeating scanning with the light beams modulated by the pulse signal in a main-scanning direction, several times in a sub-scanning direction.

- 10. (Original): The scanning device according to claim 7, wherein an image corresponding to one pixel is formed by exposing several times respectively in a main-scanning direction and in a sub-scanning direction.
- 11. (Original): The scanning device according to claim 7, wherein a number of the pulses for forming an image corresponding to one pixel is determined on the basis of tone information obtained from the image data.
- 12. (Original): The scanning device according to claim 7, wherein the light source includes a microarea light-emitting diode emitting a light beam in a wavelength range corresponding to blue, a microarea light-emitting diode emitting a light beam in a wavelength range corresponding to green, and a microarea light-emitting diode emitting a light beam in a wavelength range corresponding to red.
- 13. (New): The scanning device according to claim 3, wherein pulse signals for producing the light beams for repeating scanning have substantially a constant level.
- 14. (New): The scanning device of claim 1, wherein the light beams are formed by multiple pulse signals to form multiple overlapping dots per pixel.
- 15. (New): The scanning device of claim 14, wherein a percentage overlap of dots is more than 50% of a dot diameter.
- 16. (New): The scanning device of claim 1, wherein the microarea light-emitting diode is driven using a fixed current and is free of intensity modulation.